

**Area of Origin Protection:
Our Fisheries and Other Public Trust Interests**
by
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Abstract

A promise was made to Northern Californians in the 1920's and 1930's when the federal and state water projects were being proposed to protect area of origin rights and interests. That promise was that only water which was surplus or excess to the needs of Northern California watersheds and water users would be exported. This essentially means if you export water "do no harm" to Central and Northern California fisheries. This promise was embodied in California law as a condition on the State Water Project and the Federal Central Valley Project.

This promise has been broken again and again by the operators of the State Water Project and the Federal Central Valley Project. The needs of Central and Northern California streams and watersheds are frequently not being met. Those needs include protecting our water and fisheries, associated public trust uses and ecological values. The harm has been so great that the numbers of Chinook salmon and Steelhead and other fish species and their habitats have been greatly reduced to where the people have sought protection for these species under the Federal and California Endangered Species Acts. Pushing Northern and Central California Chinook salmon and Steelhead numbers so low to require protection under the Endangered Species Acts, doesn't equate to "do no harm". Delta water quality is not healthy.

Westside San Joaquin Valley corporate farms and Southern California water interests are now trying to gut the limited protection of Central and Northern California fisheries and associated public trust interests, so that water exports pumped from the Delta can be increased to a guaranteed amount per year in any given year. These same interests want to ignore the past promises to take only water that is surplus or excess to the needs of the areas where the water originates.

This is not a "fish versus people" thing. It is a people and people thing. The harvesting and consumption of salmon serves as many, if not more human and small business needs than does the harvesting and consumption of land grown crops, and it does so without poisoning the land or polluting the aquatic environment.

The promise that only water surplus or excess to the needs of Central and Northern California would be taken has been broken. That promise must be kept. The people must be ready to go to court, if the State Board fails or is non-responsive to the issues surrounding Watershed and Area of Origin protection and the limitation imposed by Water Code 11460 and 11463. If we do not protect our "Area of Origin" and "Watershed Protection" resources, uses, and values for people, we fail to protect and safe guard our salmonid fishes and we then fail in our public trust responsibilities for everyone's children. Our Grandchildren's resources and opportunities are at stake.

**Felix E. Smith has spent over 50 years of experience working on water management, fish and wildlife issues. May 10, 2010.*

Biography and Acknowledgements

Felix E. Smith graduated with a B.S. Degree from Humboldt State University in 1956. He is a native Californian, growing up fishing and hunting the waters of San Francisco Bay and marshlands. He is a veteran fish and wildlife biologist, project coordinator, special project biologist and Field Supervisor with the Fish and Wildlife Service for over 34 years. He has spent over 50 years working on water management, fish and wildlife issues with about 40 years in California. His first experience and knowledge of the Public Trust Doctrine was gained while working San Francisco Bay tideland reclamation issues. He later went on and gained more experience working the estuarine and coastal zone in the states of California, Oregon and Washington. He then followed the Public Trust to inland waters such as Clear Lake, Lake Tahoe, Mono Lake and its tributaries. He was on the team of biologists investigating the selenium deformed bird issues at Kesterson National Wildlife Refuge. He held the first deformed and alive young migratory bird, American coot, found at Kesterson NWR in 1983.

He is an outspoken advocate for using the Public Trust Doctrine to protect the people's fish and wildlife resources, their habitats, associated uses and ecological values. He is a member of the Sacramento Area Water Forum and is on the Board of Directors of Save the American River Association.

This article was prepared, in part, for use by the Save the American River Association and others to expand the knowledge and understanding of issues regarding the protection of Public Trust resources, uses and values of Areas of Origin. The protection of Area of Origin resources, uses and values has long been a concern especially with the massive amounts of water that have been transferred / exported to the Central Valley and the Delta for export to points south of the Delta.

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Area of Origin Protection: Our Fisheries and Other Public Trust Interests

Introduction

This paper is intended to highlight some of the issues surrounding the purpose and intent of the various “Area of Origin” provisions of California water law. State and Federal laws have been passed that strengthen the intent and purpose of such laws.

There is continuing pressure from out-of-the-area water purveyors and corporate agricultural interests to take more and more water from Northern and Central California rivers and streams. Past efforts have severely impacted fish resources and associated values in Watersheds and Areas of Origin. The impact is not by the direct taking; harming or killing of California’s salmon and steelhead, but by starving them of habitat, or leaving their habitat too warm or so polluted that it is lethal to adults and young and the food web can be toxic.

This pressure is being led by water districts and farming corporations wanting cheap water because they have mined their groundwater. Wells were dug deeper and deeper with more and more water pumped. Pumping costs became prohibitive, but they continued to mine their groundwater. They pleaded to political leaders to obtain Northern California water as a replacement and supplemental supply. They received water the first time via the Federal Central Valley Project (CVP).

Approximately 5,200 square miles of the San Joaquin Valley have experienced land subsidence of more than 1 foot because of groundwater mining. The maximum subsidence of 29.6 feet recorded between 1925 and 1977 was in western Fresno County. However the extent of land subsidence generally coincides with those areas that have significantly over drafted - mined their groundwater (USGS –1991 in Trinity River MFR-EIS Report, Oct -2000.)

Today Western San Joaquin Valley corporate farms are again crying and pleading for more water, because they have again mined their groundwater. These “too big to fail” corporate farms are claiming water shortages while holding very junior water contracts, not state issued water rights. They want to be bailed out again. This is like the taxpayer bailing out the banks. Through their political friends, these interests want the Bureau of Reclamation (Bureau) to deliver more taxpayer-subsidized CVP water to them at the expense of Northern California and Bay-Delta areas of origin water, fishery resources, wetlands and other public trust interests, and higher priority needs of Sacramento Valley farms.

One thing is well known, the corporate farming interests of the Westlands Water District and the San Luis Unit may desire to work the soil, but they really like cultivating subsidies, political power and making back room deals (Sacramento Bee 2.27.10.)

Area of Origin Provisions of California Water Law

As least as early as the 1920's the State Engineer and Legislature recognized that in order to transfer Sacramento River water to the San Joaquin Valley, they would have to protect the waters and beneficial uses of water where the water originates. The people of Central and Northern California wanted their waters and resources protected. The promise made was that only water "excess" or "surplus" to areas or county of origin needs would be exported. After numerous attempts, an amendment was added to the State's Central Valley Project in 1931. It became Section 11 of California's Central Valley Project approved by the Governor on August 5, 1933, and later became Sections 11460 – 11463 of the California Water Code.

California's "Area of Origin" provisions of California water law are legislative expressions of the people's desires to protect resources, uses, and values of the areas where the waters originate. The various Area of Origin statutes include:

The County of Origin Act - 1931 (Cal. Water Code Section 10500 -10505), reserves the water supplies necessary for the development of the counties of origin. These waters are held under State filings. Section 10505 states, "No priority under this part shall be released nor assignment made of any application that will, in the judgment of the board, deprive the county in which the water covered by the application originates of any such water necessary for the development of the county"

The Watershed of Origin Protection Act (Cal. Water Code Sections 11460-11463) was included as a part of the State Central Valley Project Act passed in 1933. Section 11460:

"In the construction and operation by the department of any project under the provisions of this part, a watershed or area wherein water originates, or an area immediately adjacent thereto which can conveniently be supplied with water there from, shall not be deprived by the department directly or indirectly of the prior right to all the water reasonably required to adequately supply the beneficial needs of the watershed, area or any of the inhabitants or property owners therein."

Section 11463:

"In the construction and operation by the department of any project under the provisions of this part, no exchange of the water of any watershed or area for the water of any other watershed or area may be made by the department unless the water requirements of the watershed or area in which the exchange is made, are first and at all times met and satisfied to the extent that the requirement would have been met were the exchange not made, and no right to the use of water shall be gained or lost by reason of any such exchange." (Underlining added for emphasis.)

The Delta Protection Act of 1959, (Cal. Water Code Sections 12200-12205) includes the policy statement that that no person, corporation, public or private agency or the State or the United States should divert water from the channels of the Sacramento - San Joaquin Delta to which the users within the Delta have first priority. The owners and users holding Delta water rights also have rights to water of appropriate quality to meet their needs before water can be exported to areas of water deficiency.

Water Code Section 11128, states, "The limitations prescribed in Section 11460 and 11463 shall also apply to any agency of the State or Federal Government which shall undertake the construction or operation of the project, or any unit thereof"

These Water Code Sections clearly operate as a limit on the water that can be transferred or exported out of the basin of origin by the state and federal operators of the Central Valley Project and the State Water Project.

A review of State and Federal reports, public statements, documents, etc, reveals they are replete with promises to protect the needs of the "Area of Origin". These documents refer to "surplus water" or "excess water" that is no longer needed to meet the needs of the Sacramento Valley and to repel salt water from entering the Delta, would be exported to the Western San Joaquin Valley. Department of the Interior officials endorsed this policy.

On Feb. 17, 1945, the Joint Committee on Rivers and Flood Control of the California State Legislature posed to the Bureau, the question: "What is your policy in connection with the amount of water that can be diverted from one watershed to another in proposed diversions?" In stating the Bureau's policy, Acting Regional Director R.S. Calland, quoted Section 11460 of the State Water Code, which is sometimes referred to as the County of Origin Act, and then said:

"As viewed by the Bureau, it is the intent of this statute that no water shall be diverted from any watershed which is or will be needed for beneficial uses within that watershed. The Bureau of Reclamation, in its studies for water-resources development in the Central Valley, consistently has given full recognition to the policy expressed in this statute by the legislature and the people. The Bureau has attempted to estimate in these studies, and will continue to do so in future studies, what the present and future needs of each watershed will be. The Bureau will not divert from any watershed any water, which is needed to satisfy the existing or potential needs within that watershed. For example, no water will be diverted which will be needed for the full development of all of the irrigable lands within the watershed, nor would there be water needed for municipal and industrial purposes or future maintenance of fish and wildlife resources." (CVP Authorizing Documents, 1956 at pg. 804 and 805.)

Secretary of the Interior Julius Krug stated on Oct 12, 1948: "Let me state, clearly and finally, the Interior Department is fully and completely committed to the policy that

no water which is needed in the Sacramento Valley will be sent out of it.” He then added, “There is no intent on the part of the Bureau of Reclamation to ever divert from the Sacramento Valley a single acre-foot of water that might be used in the Valley now or later.” (CVP Authorizing Documents, 1956 at pg. 694.)

There is no doubt that Northern California and Sacramento Valley residents were assured that only water “surplus to the needs of the Sacramento Valley” would be transported to the San Joaquin Valley. State laws passed (Water Code 11460 - 11463) give strength to those assurances. In the San Joaquin Valley, the exchange contractors get first priority to Sacramento River water; other croplands are at a lower priority and get supplemental water. A typical 9(e) irrigation contract provides for the United States to furnish a supplemental water supply... In addition the United States is not liable for water shortages caused of operator error, drought, water rights permit and license conditions, all applicable state and federal laws. The more junior the water contract the more likely the deliverable amount of water will be less than the desired maximum. (CVP Authorizing Documents, 1957, pg. 107-115.) The CVP contract between Westlands Water District and the United States renewed in 2006 authorizes the delivery of up to 1,150,000 acre-feet per year if consistent with all applicable State water right permits and licenses, and all State and Federal laws. Westlands representatives knew the water was pumped out of the Delta and that the updated contracts explicitly address the uncertainty of water delivery.

Fundamental restrictions on federal water development projects are discussed in the Reclamation Act of June 17, 1902, which created the national reclamation program. It states in Section 8 among other things:

“That nothing in this Act shall ...interfere with the laws of any state; ... and the Secretary of the Interior, in carrying out the provisions of this Act, shall proceed in conformity with such laws, and nothing herein shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof: Provided, that the right to the use of water acquired under the provisions of this Act shall be appurtenant to the land irrigated, and beneficial use shall be the basis, the measure, and the limit of the right. (Emphasis added.)

The various units of the CVP are integrated and coordinated from an operational and financial standpoint for the fullest and most beneficial uses of the land and water resources for the widest public benefit consistent with applicable state and federal laws.

Some units of the CVP contain specific language in the authorizing document for conserving, protecting or improving the people's fish, water and wildlife properties of the area of origin. For example, the October 14, 1949 Act reauthorizing the CVP to include the American River development, states in Section 2, “... the use of water in accord with State water laws, including but not limited to such laws giving priority to the counties and areas of origin for present and future needs.” Another example, the August 12,

1955 authorization of the Trinity River Division states in Section 2, ... "the Secretary is authorized and directed to adopt appropriate measures to insure the preservation and propagation of fish and wildlife including but not limited to maintenance of stream flow down stream of Lewiston...." The meaning is instream flow (in excess of statutorily prescribed minimum) as determined by the Secretary to meet in-basin needs takes precedence over needs to be served by out-of-basin diversion.

The purpose and intent of County of Origin and Watershed Protection Laws and specific language in Act authorizing CVP Units are to reserve for the areas / counties where the water originates and the Delta, a right to such waters for future needs. Such areas have a preferential or paramount right to such waters for beneficial uses over areas outside of the basin, even though the outside area may have a greater need. However "Area of Origin" water right holders have the responsibility to provide stream flows needed to protect and restore downstream fish resources, associated habitats and other beneficial uses including interests protected by the Public Trust Doctrine.

An interesting insight is found in the Bureau of the Budget's letter of July 24, 1953, to the Secretary of the Interior commenting on legislation to that went on to reauthorize the Central Valley Project (Public Law 674 August 17, 1954). The letter states "that the costs for correcting damages to fish and wildlife resources caused by the building of projects should be treated as part of the construction costs and allocated to the various purposes in the same manner as other damages, including relocations." The meaning of this quote, is that the people's water, fish and wildlife (trust resources) impacted by such projects must be protected and damages that incur are to be corrected as a cost of the project and that such costs are to be borne by the project users and beneficiaries (CVP Authorizing Documents 1956 at pg. 841 - 42.)

The Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575), which included Title XXXIV- Central Valley Project Improvement Act (CVPIA) was signed into law October 30, 1992. The CVPIA amended previous authorizations of the CVP to include fish and wildlife protection, restoration, and mitigation as project purposes having equal priority with irrigation and domestic water supply uses, and fish and wildlife enhancement having an equal priority with power generation.

Purposes of the CVPIA are defined in Section 3402 of the Act: (a) to protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River Basin of California; (b) to address impacts of the CVP on fish, wildlife, and associated habitats; (c) to improve the operational flexibility of the CVP; (d) to increase water-related benefits provided by the CVP to the State of California through expanded use of voluntary water transfers and improved water conservation; (e) to contribute to the State of California's interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and (f) to achieve a reasonable balance among competing demands for use of CVP water, including the requirements of fish and wildlife, agriculture, and municipal, industrial, and power contractors. Section 3406 (a) (3) added: The mitigation for fish and wildlife losses incurred by the construction operation and maintenance shall be based on the replacement of ecologically

equivalent habitat. CVPIA Sec. 3406 (b) (23) (B) requires that costs associated with Trinity fishery restoration and maintenance be billed to the CVP contractors as O&M costs. The CVPIA Sec. 3407 established a Restoration Fund to pay for fish and wildlife habitat restoration, improvement and mitigation activities.

Public Trust in Fish

There is a public trust in water (including water quality) and a public trust in fish, other aquatic life and wildlife of those waters. The California Supreme Court in *People v. Truckee Lumber Co.* (116 Cal 397 -1897) stated:

“The fish within our waters constitute the most important constituent of that species of property commonly designated as wild game, the general right and ownership of which is in the people of the state ... and the right and power to protect and preserve such property for the common use and benefit”

To say it another way, the state owns the fish resources in its waters in trust for the benefit of the people and future generations. This ownership extends to all waters within the State, public or private, where these fish live or historically used for migration, spawning, and rearing and other purposes.

The Federal Endangered Species Act (FESA) - 1973, as amended, and California Endangered Species Act (CESA), 1970, as amended, - Fish and Game Code Section 2050 et seq., have as a goal the preservation and restoration of natural ecosystems in which animals live or they utilize at some time in their lives that are threatened by a changing environment.

Under the FESA federal agencies are required to help restore and protect listed species / populations. Federal agencies are prohibited from carrying out activities or programs that would adversely affect critical habitat / ecosystems of endangered or threatened species. The CESA prohibits any person or corporation from taking endangered or threatened birds, mammals, fish, reptile or plant species or subspecies native to California (Fish and Game Code Section 2050 et seq.) The CESA also applies to species petitioned for listing. Permits must be obtained to take listed species.

Preserving habitat / ecosystems for endangered species also benefits other species of that ecosystem. The conservation of endangered species requires the preservation, restoration and protection of suitable habitat for the long term.

Fish and Game Code Section 5937 (Passage of water for fish below a dam) can be traced to the State legislation passed in 1870. It was part of the State Penal Code Section 637 and was amended in 1915 -- owners of a dam shall allow sufficient water “at all times” to pass through a fishway to keep “in good condition” any fish that may be planted or exist below the dam. In 1933, Code Section 637 was incorporated into the Fish and Game Code as Section 525 (Stats 1933 ch.73, Section 525, p 443). In 1937 Code Section 525 was amended into what Code Section 5937 is today. Section 5937, in part reads, “The owner of any dam shall allow sufficient water at all times to pass

through the fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in “good condition” any fish that may be planted or exist below the dam. The flow regimen released is to maintain “in good condition” populations of fish and other components of the aquatic ecosystem that may reside, are in transit or may be planted below the dam. (Emphasis added.)

The actions leading up to what is today’s Section 5937 were taken because of what had occurred to Mono Lake, to its tributaries and to Owens Valley. The practical effect of Section 5937 is to limit the amount of water that may be allocated from a stream, by requiring as a priority that sufficient water “first” be determined and released “at all times” to provide habitat conditions to assure that fish, other aquatic life and trust resources below the dam are maintained “in good condition”. The Court in *Cal Trout 1* said that Los Angeles Water and Power permits “must be conditioned to comply with Code Section 5937 mandating dam owners must allow sufficient flow of water to keep fish below the dam in good condition. (*California Trout v. State Water Resources Control Board*, 207 Cal App 3d 585-1989, called *Cal Trout 1*). (Emphasis added.)

The operative words of Fish and Game Code Section 5937 are “The owner of any dam shall at all times release sufficient water to keep in “good condition” any fish that may be planted or exist below the dam” are supported by the principles of the public trust doctrine. The guiding principles of in “good condition” are discussed in *California Trout 1*. It includes 1) the health of individuals, fish are healthy, free of disease, parasites, etc., and have reasonable growth rates with adequate habitat; 2) diversity and abundance of aquatic populations, diversity of age class, sufficient habitat to support all life stages and support self-sustaining populations; 3) the community, its overall health including co-evolved species and the health of the aquatic ecosystem at several trophic levels. (Emphasis added. Also see Moyle, et al. - 1998.)

The *Cal Trout 1* decision required that the license held by the City of Los Angeles Water and Power to divert water from the Mono Lake Basin, be amended to comply with Fish and Game Code Sections 5937 and 5946. Section 5946 requires that any dam constructed in District 4½ shall be in full compliance with Section 5937. This action put determining instream flows and the water quality needs **first** to protect fisheries and public trust interests, before water is allocated out of the Mono Basin to those bent on exploitation. The *Cal Trout 1* Court also determined that Los Angeles Water and Power was taking water that was outside the provisions of Water Right Permits 5555 and 5556 with an average of 51,000 acre-feet taken annually for 1940-41 to 1962-63. Some cast Los Angeles Water and Power as a scofflaw, pure and simple (Hart -1996.)

The ruling in *Cal Trout 2*, (*California Trout v. State Water Resources Control Board*, 266, Cal. Rptr. 788 - 1990) required that stream flow requirements be added to Los Angeles licenses immediately, not after many years of study. It required not just protection but restoration of the fish resources that had been there in 1940.

A federal court ruled in 1998 that the Bureau, pursuant to Section 8 of the 1902 Reclamation Act, has the duty to comply with state law in the operation of Friant Dam

on the San Joaquin River near Fresno. This ruling came a half-century after the completion of Friant Dam that blocked the San Joaquin River downstream of Friant Dam and reducing it to a trickle. The Judge Karlton ruling also held the Bureau has the duty to comply with Fish and Game Code Section 5937 and to keep fish “in good condition” below Friant Dam. Section 5937 applies independently of any contractual arrangements with Federal or non-Federal water users (*Natural Resources Defense Council v. Houston*, D.C No. CV 88-1658 LKK, June 24, 1998).

In 2004, Judge Karlton made it clear that Code Section 5937 applied to the Bureau’s operation of Friant Dam. Judge Karlton ruled that Code Section 5937 was an expression of the State and its people for protecting its fish resources and is in force independent of its being stated in the Bureau’s water right permit or license for Friant Dam (*NRDC, et al. v. Roger Patterson, et al.* No. CIV S-88-1658 LKK – Aug 27, 2004.)

Environmental Quality Acts

The California Environmental Quality Act (CEQA) –1970, (Cal. Pub. Res. Code Section 21000 et. seq.) is a useful tool for implementing protections of public trust resources and interests of the “Watersheds” and “Area of Origin”. CEQA declares that it is policy of the State that the State Water Resources Control Board (State Board) is to take all actions necessary to protect, rehabilitate, and enhance the environmental quality of the State. Several CEQA provisions are particularly applicable to protecting instream resources and values. For example, it is State policy to:

“Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representatives of all plant and animal communities ...”

CEQA requires that State agencies shall use their authority to regulate activities of individuals, corporations, and public agencies “so that major consideration is given to preventing environmental damage”.

The California Attorney General in a Nov. 21, 1974, opinion concluded that the State Water Resources Control Board is required (by CEQA) to regulate the activity of water appropriation so that major consideration is given to preservation and restoration of California’s fishery resources. This would require that releases from dams meet the “in good condition” of Fish and Game Code Section 5937 and that monitoring be done to verify what is actually occurring? And if not, why not? Any reporting has been lax.

Another aspect in which CEQA can affect instream related decisions involves a 1976 amendment to CEQA:

“Public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen significant environmental effects of such projects.”

Under the National Environmental Policy Act (NEPA), the government's role is that of a "trustee" in the development of the Nation's land and water resources. This "trustee" role should have positive implications on agencies to do everything within their power to support the protection and restoration of fish and wildlife. The U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) can provide guidance and recommendation on behalf of fish and wildlife protection and restoration. The California Department of Fish and Game has similar responsibilities under NEPA and CEQA. Section (b) of NEPA provides that, "it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may...(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations". (Emphasis added.) Since fish and wildlife resources are held as a public trust for the benefit of present and future generations, government officials cannot look the other way. They must anticipate, prevent and attack the causes of environmental degradation when ever possible. (Emphasis added.)

Discussion

The Public Trust Doctrine protects many interests and uses including ecological values, environments that provide food and habitat for fish and other aquatic life, wildlife, scientific study, scenery, open space and recreational values, bathing and swimming, in addition to traditional uses of navigation, fishery and commerce (*Marks v. Whitney*, 6 Cal. 3d 251, 491 P. 2d 374, 98 Cal Rptr. 790 - 1971). Today it is no stretch of one's imagination that Public Trust protection would extend to the gene pool of our salmon and steelhead resources of the Areas of Origin and the Bay-Delta Estuary.

The *Audubon* court stated that the Public Trust Doctrine is an affirmation of the "duty of the state to protect people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right only in rare cases when abandonment of that right is consistent with the purposes of the trust." No party may acquire a vested right to appropriate water in a manner harmful to the resources protected by the Public Trust. (*National Audubon Society v. Superior Court* (33 Cal. 3d 419, 189 Cal Rptr. 346; 658 P.2d 709, cert. denied 464 U.S. 977-1983, also called *Audubon*.) When the Public Trust Doctrine clashes with the rule of priority, the rule of priority must yield (Attorney General letter of July 9, 2008.) In addition any member of the public has standing under the Public Trust Doctrine and no claims are time barred by any statute of limitation.

The *Audubon* Court also said parties acquiring rights in trust property (e.g., water), hold those rights subject to the Public Trust and can assert no vested right to use those rights in a manner harmful to the trust. One can conclude that protecting public trust interests (fish, water quality, etc.) is a pre-condition of any water right permit or license issued by the State Board.

Judge John T. Racanelli in his 1986 landmark decision, *U.S. v. State Water Resources Control Board* (227 Cal Rptr 161 (1986), called *Racanelli*) stated the State Board should consider the impacts of all upstream diversions and uses of water when making water allocation decisions. He also stated that when making water allocation decisions, it is essential that the State Board take a global perspective in carrying out its water quality planning obligations. This includes the Central Valley watershed and any watershed that provides water for use in the Central Valley (pgs 179-180.)

Judge Racanelli was aware that the available supply of water is determined largely by natural forces and that the actual water available to the CVP and SWP in the Delta largely depends upon the quantity of water diverted (i.e. depletions) up stream (pg 170.) Department of Water Resources (DWR) data indicates that the Central Valley average annual runoff, Delta inflow is about 29.58 million acre-feet (MAF) with an outflow of about 28.38 MAF. The difference is estimated Delta consumption. State Board data indicates there are about 6,300 active permits and licenses containing about 245 MAFA. There are 100 rights having a value of 500,000 AFA or more for 84 percent of the total. The CVP and SWP rights (75) account for 53 percent of the total rights within the Delta watershed (State Water Resources Control Board, September 2008.)

In *Cal Trout 1* and *Cal Trout 2*, the Courts concluded that with Fish and Game Code Section 5937, the Legislature had resolved the competing claims for the use of water in favor of preserving the State's fisheries. Compliance with Section 5937 necessarily limits the water available for other uses. The priority of the Public Trust Doctrine being in the fisheries in the streams, rivers and other waters including estuaries which are affected by dams, water diversions, and depletions. This would include the diversion of water and the release of water from various dams on rivers and streams tributary to the Sacramento – San Joaquin Bay–Delta Estuary.

The *Audubon* Court tied the protection and restoration of public trust resources at Mono Lake, its tributary inflows, and natural resources for their innate value and not to the beneficial uses of water for private gain. Under *Audubon* the State Board's first task was to determine the water requirements necessary to protect and restore trust uses in the Mono Lake Basin. In its Decision 1631, the State Board's effort was to establish standards to protect the many natural values and beneficial uses of Mono Lake Basin and tributaries before water could be exported out of the Basin (Koehler - 1995).

With the construction of the Central Valley Project and the State Water Project, the various "Watershed" and "Area of Origin" protections should come into play. As a matter of State law, the protection of Water Code Sections 11460 and 11463 would apply to the Federal Central Valley Project and the State Water Project, pursuant to Water Code Section 11128, which provides:

"The limitations prescribed in Section 11460 and 11463 shall also apply to any agency of the State or Federal government which shall undertake the construction or operation of the project, or any unit thereof, including, besides those specifically described, additional units which are consistent with and which

may be constructed, maintained and operated as part of the project and in furtherance of the single object contemplated by this part.”

The needs of the Watersheds and Areas of Origin must be more than just considered in the planning of water engineering projects. The meaning of Section 11463 puts the social and economic water needs of “Watersheds” and “Areas of Origin”, at a priority, a senior right. Section 11463 states, “... no exchange of water ... maybe made unless the water requirements of the area of the watershed or area in which the exchange is made are first and at all time be met and satisfied” before any water is transferred out of the Watershed (emphases added.) The Watershed Protection Acts operate as a limitation on any State or Federal agency operating the Central Valley Project and the State Water Project.

The *Cal Trout 1* Court’s interpretation of Code Section 5937 was that flows and environmental conditions for fish must be established first before water is allocated for out of stream uses. The language in Water Code Section 11463 has a similar intent and meaning to that of Code Section 5937. Also each Section was formulated and established during the mid 1930s in light of water struggles between residents of Owens Valley and the City of Los Angeles over water. There was a need to protect Area of Origin water needs (economic needs including fishing and recreation) before water is exported out of the area or watershed. For example, Section 11463 reads:

“...no exchange of the water of any watershed or area ...for the water of any other watershed or area may be made by ... unless the water requirements of the watershed or area in which the exchange is made are first and at all times met and satisfied to the extent that the requirement would have been met were the exchange not made, (emphases added.)

It makes sense that the meaning of Section 11460 applies to annual, short term, and long-term water exchanges. This is because conditions vary from year to year, (water supply, i.e. rainfall, snow melt runoff, and timing varies year to year) and affect downstream resources and beneficial uses, only the magnitude changes each year. For example: adult Chinook salmon are impacted yearly during upstream migration, holding, and spawning. Egg incubation, rearing of young and out-migrating smolts are affected by the water temperature, timing and magnitude of flow releases from rim reservoirs to meet Delta standards and for export to the west side of the San Joaquin Valley. Impacts to Winter-run and Spring-run Chinook salmon adults and smolts, Delta smelt and Longfin smelt are affected by flows released from Shasta Reservoir for export and for improving water quality in the Delta.

Congress enacted the Trinity River Division in 1955 as PL 386 and it became operational in 1963. Water from the Trinity River Watershed is transferred to the Central Valley Watershed as a part of CVP operations. Water from the Trinity Dam and Trinity Lake passes to Lewiston Lake, then through a tunnel under mountains to Francis Carr Powerhouse, then to Whiskeytown Lake, then eastward through another tunnel to the Spring Creek Powerhouse to the Sacramento River just upstream of Keswick Dam.

From here the combined flow from the Trinity and Sacramento Rivers pass downstream to the Sacramento-San Joaquin Delta-Estuary. It is then pumped from the Delta by the Tracy Pumping Facilities for delivery mostly to Westlands Water District.

Before the enactment of the Trinity River Division, the Bureau of Reclamation represented to Congress that no more than 52 percent of the Trinity River runoff at Lewiston would be diverted to the Central Valley. Upon becoming operational about 90 percent of the Trinity River runoff above Lewiston was transferred to the Central Valley.

People soon realized that their Trinity River fishery, fish resources and the associated local economy were in deep trouble. Trinity River fish runs had declined dramatically by the late 1960s. The Fall-run Chinook salmon declined from 50 to 80 percent with the lowest count of 1,456 adults (1969-70.) Steelhead numbers declined from an estimated run of more than 50,000 fish before construction to a low of 67 fish (1970-71). Silver (coho) salmon run was very erratic and varied from 3 adults (1965-66) to 7,595 adults (1973-74)(Smith -1976.) Today the Silver (coho) salmon are listed as threatened under FESA and CESA.

A lawsuit was filed, *County of Trinity v. Andrus*, No 5-77-343-PCW- 1977. After much debate, the *Trinity Court* stated since the Water Code recognizes that fish preservation and recreation are beneficial uses of water “independent of the income derived there from,” the Watershed Protection Statutes appear to require that the Secretary of the Interior provide any water reasonably required to adequately supply the needs of the Watershed for those purposes regardless of the impact on out of the area development. The County would have to develop the data and support for the needed water (Schneider – 1978.)

In FY1976, Congress provided special funding for the development of a program of restoration actions and investigations to define and correct the Trinity’s fish and wildlife problems. The Trinity River Basin Fish and Wildlife Management Program was the result. The actual Trinity River Restoration Program was enacted through legislation in 1984 (PL 98-541). There was also additional legislation authorizing various aspects of Trinity River restoration activities in 1980 (PL 96-335) and 1986 (PL 104-143). CVPIA in 1992 (PL 102-575, Sec 3406 (b)(23)) codified a 1980 Interior Secretary Decision affecting Trinity River studies and flows. CVPIA permanently increased flows in the Trinity River to 340,000 AF/year until a new Record of Decision is approved by the Interior Secretary and Hoopa Valley Tribe. The Trinity’s Record of Decision (ROD) of 2000 provided specific stream flows to achieve restoration of natural Chinook and Silver (coho) salmon and Steelhead resources in the Trinity River to its confluence with the Klamath River and then on to the Pacific Ocean. The objective of the Trinity’s ROD is to restore pre-dam populations of naturally spawning anadromous fish below Lewiston Dam and to compensate with lost habitat above the dams with fish produced by the Trinity Hatchery. The effort is to benefit commercial, tribal, and sport fisheries and associated economies from the Trinity River basin to affected coastal fishing communities.

During the years 1963 through 2000, an average of 74 percent of the Trinity River runoff at Lewiston has been transferred to the Central Valley. The Trinity's ROD provides for 815,000 acre-feet to be released to the River in Extremely Wet Years, 701,000 acre-feet in Wet Years, and 636,000 acre-feet in Normal Runoff Years and 453,000 acre-feet released in Dry Years, and 369,000 acre-feet in Extremely Dry Years. The amount of water released to the Trinity River amounts to a weighted average of 594,500 acre-feet annually. The Trinity River Restoration program is in place. Under this program bridges have been raised to accommodate higher flows. Other structures, wells and other flow impediments in the floodplain have been removed. The river channel is being manipulated to enhance rearing of juvenile salmon and steelhead. A monitoring program is in place to determine the success of the restoration efforts and related activities.

The State Board, in 1991 established temperature objectives for the Trinity River that were approved by US EPA as Clean Water Act standards in 1992. Since the temperature of water affects many aspects of salmonid fishes life history, the availability of cold water throughout the spring, summer and fall months is critically important to their survival. To assure the objectives / standards are met, flows of at least 450 cubic feet per second are needed during the summer and early fall until October 15, after which ambient conditions are typically cold enough to warrant reducing releases.

* North Coast Basin Plan Temperature Criteria Trinity River *		
Time / Duration	Not to exceed	River Reach
July 1 to September 14	60 DF	Lewiston Dam to Douglas City
September 15 to October 1	56 DF	Lewiston Dam to Douglas City
October 1 to December 31	56 DF	Lewiston Dam to North Fork Trinity River

The temperature mandate from the State Water Resources Control Board in its Water Rights Orders 90-01 and 90-05 and in the North Coast Basin Plan Water Quality Objectives are to protect the Trinity River fishery and should be incorporated in to a State Board Order for the operation of Trinity Dam and Reservoir before water is transfer to the Central Valley (Trinity River MFR-EIS Report, Oct 2000.)

In 1989 the State Board ordered a Trinity River specific water right hearing through Water Quality Order 89-18. That hearing has yet to be held. The Trinity River's salmon and steelhead resources remain at risk because the temperature objectives contained in the Water Quality Control Plan for the North Coast Region or the Trinity River ROD have not been implemented.

The development of the American River Basin, authorized by PL 356, October 14, 1949, added Folsom Dam and Reservoir on the American River to the CVP states in Section 2, "...the use of water must be in accord with State water laws, including but not limited to such laws giving priority to the counties and areas of origin for present and future needs." One can follow water released from the Bureau's Folsom Reservoir to the American River, through the powerhouses to and through Lake Natoma, then

released down the American River to the Sacramento River and then to the Sacramento / San Joaquin Delta-Estuary.

The Bureau operates Folsom / Nimbus Dams and Reservoirs under a water right permit D-893 issued by the State Board in 1958. The Bureau's water right permit has a minimum flow of 250 cfs January 1 thru mid-September 14, and 500 cfs between September 15 and December 31. Biological knowledge, socio-economic, legal, and institutional conditions have changed substantially since the State Board adopted D-893. The State Board, Department of Fish and Game, FWS, NMFS and the Sacramento Area Water Forum recognize the D-893 stream flows are not protective of the salmon and steelhead resources of the American River within the meaning of "in good condition" of Fish and Game Code Section 5937; or meet the needs of CVPIA, or guidance and findings of several State and Federal Court decisions.

During the 1980's focus was on the American River. East Bay Municipal Utility District (EBMUD) wanted to divert significant amount of water to its service area via the Folsom South Canal thereby dewatering the lower American River. A lawsuit quickly ensued. The lawsuit landed in the Court of Judge Richard Hodge in Alameda County as Environmental Defense Fund v. East Bay Municipal Utility District (EBMUD) – (Case No. 425955, Superior Court, Alameda County, CA.- Jan 2, 1990.) He heard days of expert testimony. He reviewed the decisions in *Audubon* (Mono Lake -1983) and *Racanelli* (*US v. State Board- the 1986 Delta decision.*) Judge Hodge then developed his own physical solution for protecting the American River, its many public trust resources, values and beneficial uses. His **first priority** was to protect the people's fish, the aquatic environment and several **other public trust uses and interests of the American River**, while allowing EBMUD and the City of Sacramento to take water under a set of reasonable and feasible constraints and conditions. The Hodge physical solution flow regimen is; October 15 thru February -- 2,000 cfs; March 1 thru June 30- 3,000 cfs; July 1 thru October 15 -- 1,750 cfs. An additional 60,000 acre-feet was to be maintained in reserve in Folsom Reservoir from mid October thru June for release upon the recommendation of the Department of Fish and Game in response to fishery needs.

Adolph Moskovitz, the lead attorney Los Angeles Dept of Water and Power in the Mono Lake case and counsel to Westlands Water District described the significance of Judge Hodge decision of the *EDF v EBMUD* lawsuit to the Sacramento Area Water Forum. He described the Public Trust Doctrine as a multi-faceted doctrine involving many resources, uses, and ecological values. Protecting the public trust is not just another use co-equal with irrigation, power production, an industrial use, or leaching salt from soils, etc. Protecting the public trust, including the preservation and restoration of fish, wildlife, and other aquatic resources, occupies an exalted position (a priority) in any judicial and administrative determination of water resource allocation (Remarks of March 3, 1994 to the Sacramento Area Water Forum.)

The current day-to-day, week-to-week operation of Folsom Dam and Reservoir by the Bureau demonstrates it is often used as a "real-time, first response facility" for meeting various Delta water quality objectives and export demands. This "real-time,

first responder” operation cause river flow to increase and then decrease below certain water surface elevations. Surface Water Resources Inc., on behalf of the Water Forum, looked into potential redirected impacts caused by changes in flow releases to the American River from Folsom Reservoir to meet Delta standards and export demands. The period of review was January 2001 through July 2004. Significant release events occurred at least 3 to 5 times a year each year. Each flow change event results in redirected impacts on Salmonid fishes in the Lower American River by affecting river flow and water temperatures during several life stages of Central Valley Steelhead (*O. mykiss*), a species listed as *threatened* under the Federal Endangered Species Act and fall-run Chinook salmon (*Oncorhynchus tshawytscha*) a potential candidate species. These redirected impacts include (1) redd dewatering and isolation: (2) fry stranding: (3) juvenile isolation: (4) depletion of Folsom Reservoir water storage: and (5) depletion of Folsom Reservoir coldwater pool affects juvenile Steelhead and holding adult Chinook salmon and delays Chinook salmon spawning (Water Forum – 2005 with attached reports, also Water Forum- 2010.) Similar Folsom Reservoir operations occurred 2005 through 2009 producing similar events and impacts. The operational affects extend to resources utilizing the American River, Delta and the Pacific Ocean including such uses as commercial and sport Chinook salmon fisheries and Steelhead fishery.

This first responder operation (and resultant flow fluctuations) also adversely impacts the “Periphyton community”, (the important food-producing community), as areas of the river are watered and dewatered by fluctuating flows. Water temperatures also adversely impact Lower American River Salmonids. Water temperatures needed to protect Steelhead and fall-run Chinook salmon are difficult to achieve in the Lower American River because Folsom Reservoir as a “real-time, first response facility” exacerbates the problem of meeting temperature criteria. Depleting Folsom Reservoir storage results in reducing the amount of coldwater that is available for managing water temperature to protect over-summer rearing Steelhead juveniles and Fall-run adult Chinook salmon holding, spawning, egg incubation and development. Elevated water temperatures may increase the susceptibility of Salmonids to disease; result in increased pre-spawning mortality and environment conditions conducive to increase predation. Such conditions do not meet the “in good condition” of Section 5937 for fish that utilize the reach of the American River downstream of the Folsom / Nimbus Dams. These first responder releases for meeting Delta standards or for export have “redirected impacts” that have immediate, annual and long-term impacts that affect water quality and fish resources of the Area of Origin or Watershed. These affects are often played down or ignored.

There is nothing in the 1949 authorization of American River Basin, or in the 1992 CVPIA that allows the Bureau, in carrying out its operation of the CVP, to degrade or destroy anadromous fish or their habitat. In fact the CVPIA directed the Department of the Interior to develop and implement a program that makes “all reasonable effort” to ensure and sustain on a long-term basis a doubling of the numbers of the naturally produced anadromous fish in the Central Valley river and streams by 2002. Under the CVPIA, fish and wildlife protection, restoration, enhancement and mitigation are project purposes having equal priority with power generation, irrigation, and domestic water

uses. The Bureau is suppose to re-operate the CVP (including Folsom Reservoir) to meet all obligations under the state and federal laws, including, but not limited to the Federal Endangered Species Act and water quality conditions on applicable water right permits and licenses (CVPIA Section 3406 (d).)

The CVPIA's equal priority for anadromous fish with other uses has not been realized, and some will say ignored on the American River. The Bureau's purpose appears not to improve conditions for Chinook salmon and Steelhead for to do so works against its primary role. Gravel has been placed to improve spawning area, but meeting the temperature needs of summering over juvenile steelhead all to frequently are not met. The thought could be "Chinook salmon and Steelhead" just get in the way of the Bureau's primary purpose in operating Folsom Reservoir. That purpose is to help deliver full water allocation to the San Joaquin River Exchange Contractors, about 881,000 acre-feet annually. Then comes effort to meet contracts of the Westlands Water District, the Bureau's powerhouse political supporter. The Chinook salmon Fall-run on the American River plummeted from about 167,000 adult natural spawning fish in 2001 to about 1,791 adult natural spawning fish in 2008 (PFMC – 2010.) There were massive amounts of water released from Folsom Reservoir to the American River for export from the Delta during this period.

The future of American River Chinook salmon and Central Valley Steelhead are at risk because there are no enforceable temperature standards incorporated into the Bureau's water right for the operation of the Folsom / Nimbus facilities. In addition the Bureau has no intention to voluntarily modify its Folsom Dam operations to meet the recommendations of the NMFS Biological Opinion (BO.) The Bureau stated in a letter of January 12, 2010, to NMFS that it would follow the flow management standard (FMS) and when additional water is needed to meet the FMS, (b) (2) water will be used. The Bureau will strive to achieve the temperature targets of 60 DF, with 56 DF as early as possible in November. In reality, the Bureau has not formulated base line criteria for public review and comment regarding the use of CVPIA Section 3406 (b) (2) water. In addition, temperature excursions above 67 DF to 71 DF are common on the American River during the summer months. Water temperatures of 65 DF to 67 DF have extended into October and November. Such temperature affects holding adult Chinook salmon. Latent embryonic mortality and growth abnormalities are associated with thermal stress when adults Chinook salmon are exposed to waters above 63.5 DF. Pre-spawning mortality and incidence of disease is also increased. Temperatures above 65 DF have extended for several weeks well into the fall months. Water temperatures protective of steelhead juveniles, 65 DF or less, have been exceeded 7 out of 9 years during the period 2001 through 2009 (Bureau Temperature Plan 4.22.2010.)

The Pacific Marine Fisheries Council (Council) reviewed the NMFS's BO, the Bureau's Folsom Reservoir operations and January 12, 2010, response. The Council concluded the Bureau has accepted the recommendations covered in the RPA (Reasonable and Prudent Alternative) of the BO. NMFS also recommended specific measures to protect fall-run Chinook salmon (e.g. minimum flow and temperature requirements). The Bureau rejected these recommendations without providing scientific

justification or other explanation for not accepting the protection measures. Rejection of the protection measures means that much of Folsom Reservoir's coldwater storage will continue to be lost during June, July and August as water is released to deliver the maximum available to the Delta pool to be exported by the Tracy Pumping Facilities. Instream temperature criteria will not be met in the fall months. This means there will continue to be "redirected impacts" to Steelhead and Chinook salmon resources and allied public trust interests of the American River. Steelhead will remain at risk.

* Lower American River Temperature Criteria *		
Time / Duration	Not to exceed	River Reach / Purpose
May 15 to September 30	65 DF	Nimbus Dam to Watt Ave. For juvenile Steelhead rearing.
October 1 –31	63 DF	Adult Chinook salmon holding.
November 1 to May 16	60 DF 56 DF	Fall-run Chinook salmon spawning, egg incubation / embryo development. Steelhead spawning, egg incubation / embryo development.

Appendix E2. Water Temperature Index Values for Technical Evaluation Guidelines. Proposed Lower Yuba River Accord – Draft EIR/ EIS June 2007. HDR/SWRI

The CVPIA's equal priority for anadromous fish with other project purposes has not been realized on the American River. The purposes of the CVPIA must be recognized and enforced. Federal Court Judge Wanger (U.S. District Court dated April 16, 2008), discussed temperature control at Shasta Reservoir to protect a FESA listed species. The Judge allowed little leeway. Temperature control obligation is non-discretionary. The Bureau is to meet temperature criteria. According to Judge Wanger, Reclamation "shall manage" the coldwater pool supply within Shasta Reservoir and make coldwater releases to provide suitable habitat for Sacramento River Chinook salmon and Steelhead in the Sacramento River between Keswick Dam and the Bend Bridge. This was based on his reading of the Temperature Criteria in the NMFS's BO.

Aware of the Bureau's response to NMFS, and in light of potential lawsuits or complaints to the State Water Resources Control Board about the Bureau's operation of the Folsom / Nimbus facilities, the issues for the American River are: -- Can the Bureau manage the runoff of the American River by re-operating Folsom / Nimbus facilities in a fish and environment friendly manner to meet the Water Forum's American River – Flow Management Standard with temperature criteria and meet Delta water quality standards? Can the Bureau do it without flow augmentation or water contributions from upper watershed diverters? If the answer to each is **Yes**, then the Bureau must get on with it and do it. If the answer to each is **No**, the Bureau should openly tell the world what facilities, upstream contributions and / or other measures that are needed so it can meet the Water Forum's Flow Management Standard and the criteria contained in the June 4, 2009 Biological Opinion issued by NMFS.

With this list of needs, the Sacramento Water Forum, its stakeholders and other interests can then help the Bureau attain the means and measures so it can carry out its fisheries management responsibilities under the CVPIA.

The Council and NMFS should take the lead and set temperature standards for the operation of the Folsom / Nimbus facilities. Following the Judge Wanger lead, the temperature standard criteria would read, "Reclamation shall manage the coldwater pool within Folsom Reservoir and make coldwater releases from it to provide suitable habitat for Chinook salmon and Steelhead in the American River between Nimbus Dam and the Watt Ave Bridge."

It is time for the NMFS and the Council to insist that the Bureau manage the Folsom / Nimbus facilities that meets the Sacramento Area Water Forum's FMS with its continuous flow and temperature components to conserve and protect the Chinook salmon and Steelhead resources, uses and values of the Lower American River. It is also time to add a yearly reporting requirement on the operations of Folsom Reservoir, the status and conditions of Steelhead and Chinook salmon of the Lower American River. Without a data gathering and evaluation program, the Bureau, the State and Federal wildlife conservation agencies and the public have no ability to focus on actions or project modifications that may be necessary to provide "good conditions" for Steelhead or Chinook salmon utilizing the Lower American River.

Lets move to the Sacramento San Joaquin Bay-Delta Estuary. The water from Trinity, Sacramento and American Rivers, commingle with other water in the Delta pool. A portion of this water is pumped out of the south Delta by the CVP's Tracy Pumping Facility and after traveling many miles in a canal, and with a possible stop in San Luis Reservoir, is delivered to lands of the CVP's San Luis Unit on the west side of the San Joaquin Valley. The SWP also pumps water out of the south Delta for delivery to its customers in the southern San Joaquin Valley and southern California.

Massive amounts of water were pumped from the Delta Pool by the CVP and the SWP and exported south during the period 2000 to 2007. Water quality criteria / standards set for the San Joaquin River and Delta were routinely violated. One can allege that the heart and spirit of the Watershed Protection and the Delta Protection Acts as described in California Water Code were violated. The CVP exported about 2.6 million acre-feet per year during 2000 thru 2007, with a high of 2.78 MAF and a low of 2.26 MAF via the Tracy Pumping Plant (Tracy Pumping Plant - 2010.) The SWP pumped over 3.00 MAF annually during this same period with several years above 3.5 MAF with a high of 3.7 MAF in 2005 (DWR -2009.) Some of this pumping was surely to meet the secretly negotiated provisions of the Monterey Amendments which altered several basic rules of the State Water Project to benefit large land holders in the southern San Joaquin Valley (Rossmann -2009.) Such pumping ran the SWP and CVP reservoirs to very low storage levels in 2008 and 2009. This makes one question the limitations of Water Code Section 11460 and 11463 and who enforces limitations on export pumping, the State Board or the people through the courts?

When some of this water is used to irrigate soils of Westlands and the San Luis Unit, a portion becomes agricultural runoff and drainage. This runoff and drainage is frequently contaminated with naturally occurring selenium, boron, other trace elements and a variety of salts, agricultural pesticides (Diazinon, Chlorpyrifos, DDT, etc), and

other chemicals. This selenium, boron, salt and chemical-laced drainage and runoff manifests itself in a contaminated aquatic ecosystem and food chain that can be toxic to young Chinook salmon and Steelhead and other fishes and wildlife of the San Joaquin River and Delta, as well as contaminating the area's ground water (Dubrovsky- 1998, Presser and Luoma –2006, US Fish and Wildlife Service 2006, Beckon and Maurer -2008). The State Board refers to the 130 mile Valley reach of the San Joaquin River as being toxic to aquatic life from agriculture sources and sources unknown (SWRCB-2000.) In addition many public trust and beneficial uses of water on public and private lands have been affected (Smith-1996, Smith-2010 with attachment.)

The subsidy aspect of the CVP has long been recognized. According to the Department of Interior –Special Task Force Report, the estimated subsidy was about \$1,100.00 per acre in 1977. The subsidy received by the San Luis Unit was estimated at \$769,192,000, dollars or about \$1,540 per acre in 1977 dollars. Today the subsidy value would be about \$5,617 dollars per acre based on a 4 percent interest rate between 1977 and 2009 (See Special Report, Pgs 38-40.) About 60 percent of the subsidy is for water supply and 40 percent is for distribution.

With the record amounts of water pumped out of the Delta by the SWP, the question becomes; where did the water go? Department of Water Resources data indicates that about half the SWP water goes to Metropolitan Water District of Southern California, as an M& I supply and about 25 percent goes to Kern County Water Agency as an agricultural supply (DWR-2009.) Since public trust protection for water follows with the water, a major question is the operation of the Kern Water Bank? How much water was delivered to the Kern Water Bank as agricultural water at agricultural water prices and then pumped out and sold by private interests at urban water prices, is any one's guess? Any profiteering on a public trust resource has all the looks of outright corruption by public officials who had to know what was actually going on. These officials should be held accountable for their actions or lack of actions in the courts.

The steep decline of adult Fall-run Chinook salmon returning to the Central Valley commenced in 2005. However the 2005 adult Chinook salmon spawning run (escapement) are the survivors of the 2002 spawning season and spring 2003 out migration. The objective of 122,000 to 180,000 hatchery and natural adults was not met for the third consecutive year, 2007, 2008 and 2009. The returning adults are mostly fish that are 3 years old, having spent their youth in the Pacific Ocean. In 2008 and 2009 there was no commercial or sport fishery for Central Valley Fall-run stocks of Chinook salmon along the Central and Northern California Coast and into Central Oregon Coast nor was there a Central Valley fishery. The 2009 Sacramento River watershed Fall-run of Chinook salmon was about 41,000 adults (22,000 natural spawning adults and 18,000 hatchery spawned adults) and about 8,700 jack salmon (precocious adults). The San Joaquin River watershed Fall-run was about 1,400 natural spawning adults and 700 jack salmon.

The massive exports by the CVP and SWP totaled 5.26 MAF in 2002, 6.05 MAF in 2003, 5.61 MAF in 2004, 6.41 in 2005, 6.19 MAF in 2006 and 5.34 MAF in 2007.

During this time frame the Fall-run drop from 704,000 natural spawning adults in 2002 to a low of 23,489 natural spawning adults in 2009 (PFMC-2010.) There is little doubt such export of aquatic habitat is partly to blame for this decrease in the Fall-run Chinook salmon spawning run.

The Delta ecosystem is in serious trouble because of poor water quality. The extinction of Delta smelt, Longfin smelt, any run of Chinook salmon and Steelhead or other native fishes is not an option.

The integrated operation of the CVP makes it easier for the Bureau to provide water to priority contractors and others south of the Delta. Water can be taken from any of the CVP storage reservoirs north of the Delta, deliver to the Delta pool to meet water quality criteria and export desires. Such integrated operation of the Trinity, Shasta and Folsom Reservoirs can put into great risk the conservation and protection of several races of Chinook salmon, coho salmon and steelhead inhabiting the Trinity, American and Sacramento Rivers because of poor water quality – temperatures that are **not** protective of such anadromous fishes. Because of the reduced carry over coldwater storage occasioned by massive export demands, the releases from such reservoirs during the late summer and fall months are frequently reduced to near minimum flows to conserve water. The temperature of the water released is usually above protection criteria and have lasted for several weeks in the American River. An example of this occurred during years of 2007,2008 and 2009 when CVP Reservoirs along with SWP's Oroville Reservoir were drained to very low storage levels to provide water for export. This resulted in a politically created water shortage in the San Joaquin Valley and marginal to poor stream conditions of for fall and winter-run Chinook salmon and Steelhead of watersheds of origin.

Such CVP and SWP operations must be corrected and temperature criteria protective of all races Chinook salmon, coho salmon and Steelhead incorporated in to the Bureau's and DWR's water rights for their respective storage facilities.

Instream flow and associated resources, uses and values are not specifically mentioned in the "Area of Origin" and "Watershed Protection" laws. However, watershed needs include those of water agencies, property owners, residents and other uses such as stream flow; habitat for fish rearing, spawning and migration; for other aquatic life, wildlife, recreation, scenic, ecological areas of significance (salmon and steelhead spawning grounds), fishing, Endangered Species, etc, are beneficial uses of water. Such beneficial uses of water are economically and environmentally valuable to "Watersheds and Areas of Origin."

The Public Trust responsibilities as discussed in *Audubon* are strong and persuasive. This is not people versus fish thing. This is about ecology and the preservation of California's wildlife heritage for all future generations. It is about maintaining a viable and dynamic commercial and sport fisheries and flowing rivers. The harvest and consumption of salmon serves or provides as many if not more human

and small business needs as does the harvest and consumption of land grown crops and does so without poisoning the land or polluting the aquatic environment.

In *Audubon*, the Court reviewed the State's trustee responsibilities and the taking issue. The Court explicitly addressed the issue of taking and did not find a taking. The Court stated:

“Once again we reject the claim that establishment of the public trust constituted a taking of property for which compensation was required: We do not divest anyone of title to property: the consequence of our decision will be only that some landowner whose predecessors in interest acquired property under the 1870 act will, like the grantees in *People v. California Fish Company*; hold it subject to the public trust” *Audubon*, supra, 33 Cal 3d at 440 citing *People v. California Fish Company* (189 Cal. Rpt. 346 at 360-1913).

Protecting public trust interests is a pre-condition of any water right permit or license issued. Therefore the stream flow regimen (flow and water quality) necessary to help protect and restore anadromous species listed under the FESA, to some reasonable historic level, was never transferred, and therefore there is no taking. Since there is no property right attached to an unreasonable use or unreasonable diversion of water, the rule of no compensation would also apply.

The points made in *Audubon* (1983), *Racanelli* (1986) and *Cal Trout 1* (1989) by California courts are not new. They easily fit the statements made in the 1913 *California Fish Company* decision and in the 1970 Mansell decision that "The powers of the state as trustee are not expressed. They are commensurate with the duties of the trust. The State as trustee has the implied power to do everything necessary to the execution and proper administration of the trust" (underlining added for emphasis.) *People v. California Fish Company*, 166 Cal. 576, 138 Pacific 79, 87, 88 (1913), *City of Long Beach v. Mansell* 91 Cal 23, 476 P. 2d 423 at 437 (1970).

It is almost a quarter of a century since *Racanelli* (1986) provided guidance to the State Board and recommended that the State Board take a global approach to water planning and to obtain data in a comprehensive manner. The State Board failed to act. In 2009 the State Legislature passed Comprehensive Water Package. These bills mandated the State Board and others (CDFG) to identify instream flow and Delta water supply needs, groundwater monitoring, Delta governance, water conservation and a number of water projects.

The State Board can, if it has the political will, apply the limitations of Water Code Section 11460-11463 on the CVP and SWP. So can the administrators of the CVP and SWP, but don't hold your breath for this to happen. The State Board also can apply the Public Trust Doctrine (1) to virtually all surface water courses; 2) to all holders of water rights, i.e. pre and post 1914 appropriators, riparians and contract users; 3) to review the impacts of the diversion of water on the entire ecosystem (bed, riparian vegetation, water quality, all aquatic life, etc.), 4) to develop imaginative physical solutions involving

flow and non-flow aspects; and 5) to consider the impacts of all diverters. The State Board can apportion the duty to protect trust uses to all the diverters on rivers and streams in question.

It is State Board policy to enforce Fish and Game Code Section 5937 to pre-1914 water rights (State Board Order WR-95-4). Section 5937 can stand on its own; however, it is seldom enforced. In 5937 it is "The owner – operator of any dam shall release sufficient water to keep "in good condition" any fish down stream...." An annual monitoring program and data evaluation is not required as a condition under Code Section 5937, the FESA, the CVPIA and water rights permits or licenses reports. Without a monitoring program and an evaluation of the data, the Bureau, the State and Federal wildlife conservation agencies and the public have no ability to focus on actions or project modifications that may be necessary to provide "good conditions" for Steelhead or Chinook salmon utilizing the Lower American River. Therefore a program to monitor the various parameters of the Lower American River, the systematic review and reporting of the data should be a condition of water right permit or license issued by the State Board. This should also be accepted and common practice of all CVP features and Federal Energy Regulatory Commission licensed projects.

The State Board also can apply the restoration and protection thinking and actions of *Cal Trout 2* to "Area of Origin" rivers and streams. The purpose being to restore streams, habitats, associated fish resources, ecological values and other beneficial uses to tributaries to the Bay-Delta and the Estuary itself. The *Cal Trout 1* Court said, "The public is not to lose its rights through the negligence of its agents, nor because it has not chosen to resist an encroachment by one of its own number, whose duty it was, as much as that of every other citizen, to protect the state in its rights". The Court relied on *People v. Kerber* (152 Cal 731,732-736, 93 Pac. 878 - 1908) for the continuous protection of public trust interests.

If the State Board or a court invokes the limitation of Section 11463 or the Public Trust Doctrine to protect and restore instream flows and other public trust interests, it is entirely reasonable that the rule of no compensation would apply. This is based on the theory that there can be no superior private ownership rights to water in a stream since the sovereign already owns the water. The private rights to the use that water are subject to paramount public rights, therefore no Fifth Amendment taking would occur.

One can quickly conclude that the greater the assurance that Central Valley Chinook salmon, steelhead and other fishes will be provided with the freshwater and Delta environmental conditions that will protect and support the "Doubling" goals of the CVPIA, the more likely that CVP and SWP contractors on the Westside of the San Joaquin Valley will receive a supplemental supply of water.

Conclusion

The paramount purpose of the "Area of Origin" provisions of State law is to guarantee the Watersheds and Areas of Origin sufficient water for local uses and allocation, public trust and ecosystem restoration purposes, and the local economy,

before water is transferred out of the area. To say it another way water exported from such areas ultimately must be subordinate to and not negatively impact resource and environmental protections of “Watersheds” and “Areas of Origin”. The first step in securing a reliable water supply must be the realization that restoring and protecting public trust resources, uses, and ecological values and the environment of the Watersheds and “Areas of Origin” are legitimate needs of the people (Rossmann - 2009). Extinction of the Delta smelt, Longfin smelt, any run of Chinook salmon and Steelhead or any other native fish species is not an option.

Government institutions and corporations are going to have to start thinking ecologically and manage ecosystems to meet the needs of conventional economy as well as the economy of nature where river and streams produce healthy and sustainable fish populations, and wetlands remain biologically productive, non-toxic to fish and wildlife and the lands are not poisoned.

The “Area of Origin”-“Watershed Protection” laws coupled with the Public Trust Doctrine, Fish and Game Code Section 5937, Federal and California Endangered Species Acts, and California’s Environmental Quality Act can provide the foundation and tools to protect California’s Chinook and Silver salmon, and Steelhead and other fishes found in Central and Northern California rivers and streams against the raids by out of the area water purveyors and corporate agriculture.

This is a people thing. The harvest and consumption of salmon serves or provides as many if not more human and small business needs as does the harvest and consumption of land grown crops and does so without poisoning the land or polluting the aquatic environment.

The State Water Resources Control Board, with the *Audubon* and *Racanelli* decisions as support, and with its Mono Lake Basin, Water Right Decision 1631 and related restoration actions, has laid the foundation for establishing fishery flows to protect public trust resources and ecological values of the rivers and streams of the Central Valley Basin and the waters of the Bay-Delta Estuary.

The people must be ready to go to court if the State Board, SWP and the CVP managers are not responsive to the limitation imposed by Water Code 11460 and 11463, and if the purpose and intent of Code Section 5937 are violated.

If we fail to protect the “Area of Origin” watersheds, not just for human uses and values, but its waters, resources, uses, and ecological values, we fail to protect and safeguard our Salmonid fishes, and we fail in our public trust responsibilities for future generations of everyone’s children. Our grandchildren’s resources and opportunities are at stake.

End

**Area of Origin Protection:
Our Fisheries and Other Public Trust Interests**

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